14.6

ACC NR. A16032947

the [TiO6] octahedra was found to be independent of the method of synthesis. Their catalytic activity was affected by the gaseous medium, as shown, for example, by the comparative data on specific surface, preexponential factor, and activation energy for a maximum decomposition of hydrogen peroxide on a Li<sub>2</sub>TiO<sub>3</sub> catalyst prepared in the air or in vacuum.

In the group of  $A_2BO_3$  and  $ABO_3$  compounds, where B is Zr, Nb, or Ta, i.e., alkali metazirconates, metaniobates, and metatantalates, only NaTaO3 behaved like the alkali metatinates and manganites versus the gaseous atmosphere in the synthesis. The gaseous atmosphere changes the crystal structure, i.e., symmetry type and lattice constants of NaTaO3, but does not affect its picnometric density or intensity of deformation vibrational bands in their IR transmission spectra. Other compounds of this group -- Li<sub>2</sub>ZrO<sub>3</sub>, NaNbO3, KNbO3, CsNbO3, and CsTaO3 -- change their crystal structure, i.e., symmetry type and/or lattice constant, in different gaseous media simultaneously with certain physicochemical properties, e.g., picnometric density, dielectric constant, intensity of deformation vibrational bands in the IR absorption spectra, and catalytic activity versus H2O2 decomposition.

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ACC NR:

The crystal structure of LiNbO3, LiTaO3, and KTaO3, was not affected by the difference in gaseous atmosphere in the synthesis, but picrometric density, index of refraction, and intensity of deformation vibrational bands of the IR spectra were substantially changed.

These diverse and strong effects of the gaseous medium on the structure and properties of A2BO3 and ABO3 compounds were explained as the result of deformability of their structure, specifically of the rendency toward distortion of the [TiO6], [NbO6], and [TaO6] octahedra. This deformability was correlated with a significant ionic polarizability of the alkali metatitanates, metaniobates, and metatantalates. This correlation which was experimentally established for the above-indicated compounds (presumably) may be extended to other compounds with significant ionic polarizability and may form the base for predicting the possibility of a beneficial effect of a given gaseous medium on the completeness of synthesis of a given compound. In addition, a significant ionic polarizability of a given compound may be an indication of a potential ferroelectric or antiferroelectric property.

An additional indication of the possible ferroelectric or antiferroelectric property of alkali metatitanates was seen in the ob-

Card 4/5

ACC NR: A16032947

served analogy in the structure of their IR absorption bands which are linked to the stretching vibrations of the [TiO<sub>6</sub>] octahedra and in the structure of the corresponding bands of the [NbO<sub>6</sub>] and [TaO<sub>6</sub>] octahedra in the IR abosrption spectra of the alkali metaniobates and metatantalates. The observed spectral structure is characteristic of ferroelectric materials. The authors concluded that confirmation of the effect of a gaseous medium on solid-phase synthesis of a given compound is a prerequisite for studying the ferroelectric property in this compound. Orig. art. has: 1 figure and 8 tables.

SUB CODE: 11,07,20 / SUBM DATE: 14Ju165 / ORIG REF: 022 / OTH REF: 016

Card 5/5

GOL'DREYER, I.G.; YAKOBSON, A.Kh., redaktor; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TABASOV, F.I., redaktor; TRAMM, B.F., redaktor; KECHIK, P.O., redaktor; SHAMMUR, V.I., redaktor; VOHONIN, K.P., tekhnicheskiy redaktor.

[Feedback electronic cascades] Lampovyi kaskad s obratnoi sviaz'iu,
Moskva, Gos. energeticheskoe izd-vo, 1954, 86 p. (Massovaia radiobiblioteka, no. 201)

(Amplifiers, Electron tube)

CHUDAKOV, Ya.A., akademik, glavnyy redaktor; AKOPOV, S.A., redaktor; ARTOBOLEVSKIY, I.I., redaktor; ACHERKAN, N.S., redaktor; BEZPROZVANNYY, I.M., redaktor; GUDTSOV, N.T., redaktor; DIKUSHIN, V.I., redaktor; YEFREMOV, A.I., redaktor; ZAPOROZHETS, V.K., redaktor; ZIMIN, A.I., redaktor; KAZKOV, N.S., redaktor; KIRPICHEV, M.V., redaktor; KOVAN, V.M., redaktor; KONYUSHAYA, Yu.P., redaktor; LIPGART, A.A., redaktor; MALYSHEV, V.A., redaktor; MARTENS, L.K., redaktor; MARIYENBAKH, L.M., redaktor; NIKOLAYEV, G.A., redaktor; ODING, I.A., redaktor; PATON, Ya.D., redaktor; RAMZIN, L.K., redaktor; RUBTSOV, N.N., redaktor; SAVERIN, M.A., redaktor; SEMEN-CHENKO, I.I., redaktor; SEMENSEN, S.V., redaktor; SHAMNI, N.A., redaktor; SHELEST, A.N., redaktor; SHUKHGAL:TER, L.Ya., zamestitel glavnogo redaktora, redaktor; YAKOVIEV, A.S., redaktor.

[Machine construction encyclopedic handbook] Mahinostroenie; entsiklopedicheskii spravochnik. Part 1. [Engineering calculations in machine construction] Inzhenernye raschety v mashinostroenii. Moskva, Gos. nauchnotekhn. izd-vo mashinostroit. lit-ry, Vol. 1. no.1. 1947. 548 p. (Mechanical engineering)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548420020-5"

SHAMLIN, I.A.

Questions of centralized and automatic control of measurements of wire broadcasting channels. Vest. sviazi 20 no.8:7-9 Ag'60. (MIRA 13:10)

1. Glavnyy inzhener Moskovskoy gorodskoy radiotranslyatsionnoy seti.

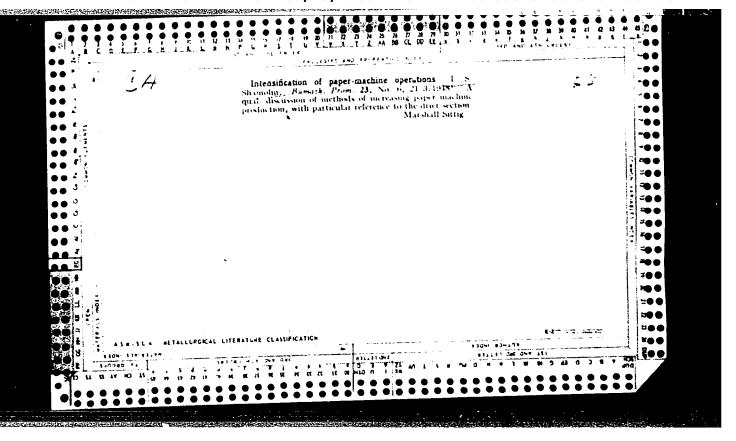
(Wire broadcasting -- Testing)

是一个人,这个人,我们就是是是是是是是是是是是是是是是是的的人,我们们们们的一个人,我们也可以把他们的一个人,这个人,我们就是是是是是是是是是是是是是是是是是是

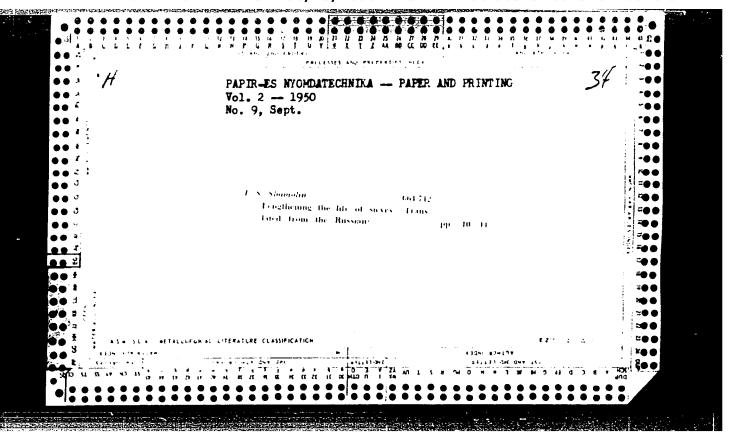
SHAMOLIN, A.S., inzhener

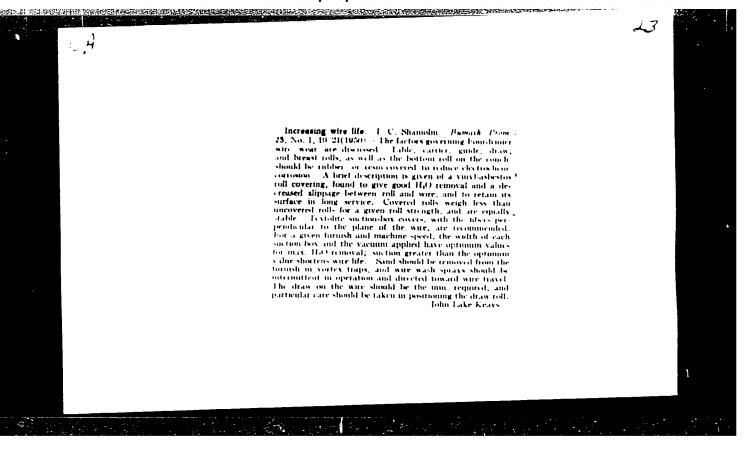
Planning a centralized power supply for lumber camps. Les.prom.
(MLRA 10:5)

1. Giprospetsles.
(Electricity in lumbering)



"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548420020-5





- 1. GOSTEV, P. I. and SHAMOLIN, I. S. and RUDSON, F. T.
- 2. USSR (600)
- h. Paper-Making Machinery
- 7. Device for feeding oulp onto the wire. Bum.prom. 27 no. 5, 1952.

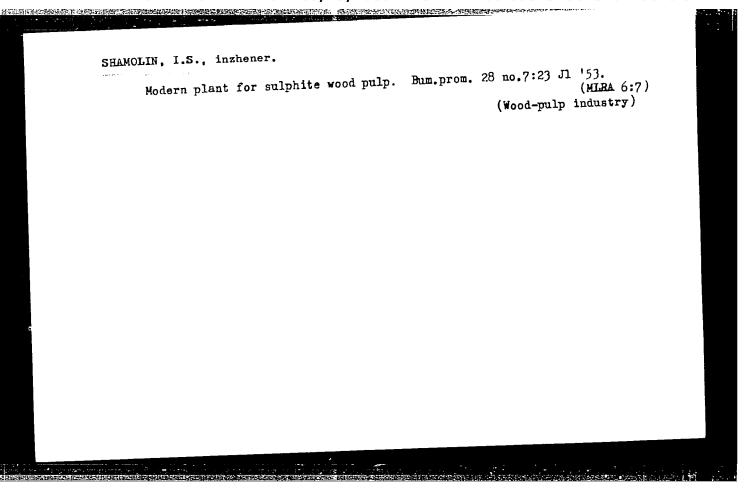
9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

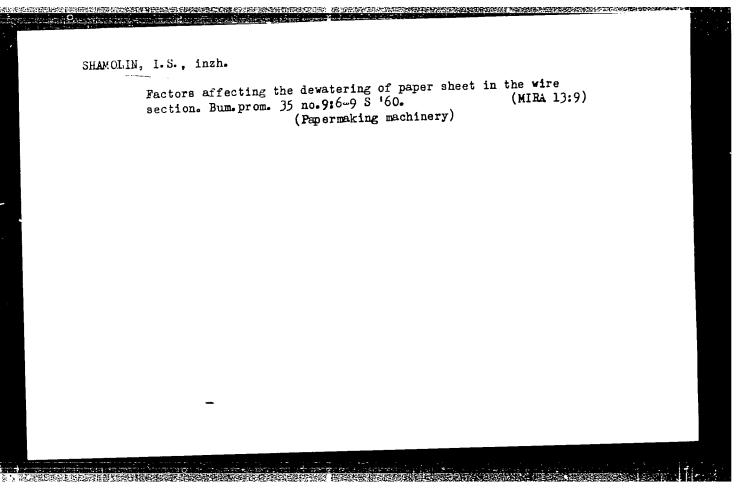
. Dalik ve meg a e e e e
. Cauc (CO)
. report allowed.
. raccord in Egreven, the quark, of paper. Sum. prom. 27, No. 10, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

SHAMOLIN, I.S.

Manufacture of pulp and papermaking equipment. Bum.prom. 27 no.12:12-13
(MLRA 7:10)

1. Zamestitel' direktora NIBumash po nauchnoy i tekhnicheskoy chasti.
(Papermaking machinery)





SHAMONIN, I.M., starshiy zootekhnik

By virtue of necessity. Zhivotnovodstvo 21 no.2:62 F 159.

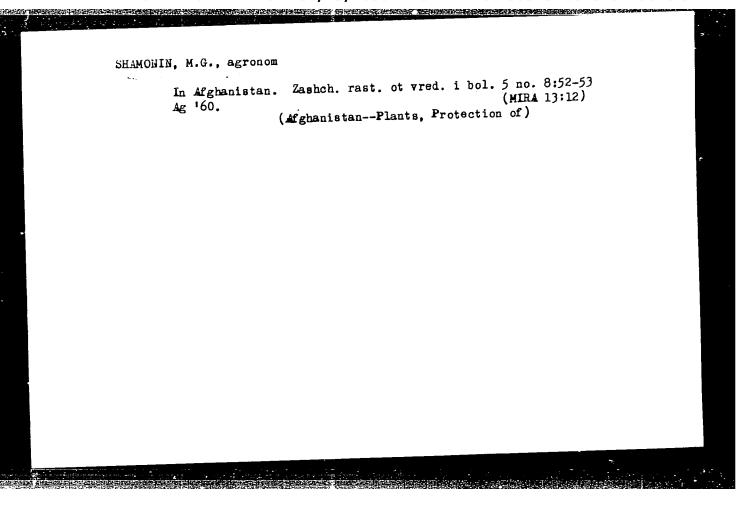
(MIRA 12:3)

1. Arzanasskaya mezhrayonnaya zhivotnovodcheskaya kontora.

(Voronezh Province--Simmenthal cattle)

SHAMONIN, M.G., agronom-entomolog

In friendly Afghanistan. Zashch. rast. ot vred. i bol. (MIRA 16:1) no.5:52-53 S-0 '150. (Afghanistan--Plants, Protection of)



全,可以为100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm,100mm

SHAMONIN, M.G., agronom

Marocco and desert locusts in Afghanistan. Zashch. rast. ot vred.

(MIRA 16:10)

i bol. 3 no.9:49-51 S '63.

SHAMONIN, Yu. Ya.

USSR/Physics - Crystals

Jan 52

"Paramagnetic Resonance Absorption and Dispersion of Susceptibility in Crystal Powders of Certain Salts at Frequency 9.62:109," B. M. Kozyrev, S. G. Salikhov, Yu. Ya. Shamonin, Phys-Tech Inst, Kazan Affiliate, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXII, No 1, pp56-61

Gives the results of measurements of paramagnetic absorption chi' and high-frequency susceptibility chi' in dependence upon the strength H of a const magnetic field disposed perpendicularly to an alternating magnetic field of frequency 9.62·109. Conducted measurements with a number of paramagnetic salts of the transitional elements of period IV. Established that while some salts give one intense resonance line, others display a spectrum consisting of several partially intersecting lines of comparatively small intensity. Noted no measurable effect in some salts.

PA 204T102

#### CIA-RDP86-00513R001548420020-5 "APPROVED FOR RELEASE: 08/23/2000

Chancer My Le Yn

Zaripov, M.M. and Shamonin, Yu.Ya. AUTHORS:

Electronic Paramagnetic Resonance in Natural Weryls TITLE:

(Elektronnyy paramagnitnyy rezonans v yestestve mykh

berillakh)

Izvestiya Akademii Nauk, V. XX, # 11, 1224-1225, Nov 1956, PERIODICAL:

(USSR), Seriya fizicheskaya

A spectrum of paramagnetic resonance absorption in ABSTRACT:

5 natural monocrystals of beryl was discovered during an investigation of paramagnetic resonance at a frequency of 9,655 megacycles. A curve in the article shows the general view of the spectrum. The table shows resonance values of the constant magnetic field

(in oersteds).

Since the monocrystals of pure beryl do not contain paramagnetic atoms, the amearance of a paramagnetic resonance absorption spectrum is caused by paramagnetic admixtures in the beryl lattice. This admixture may be Fe+++ ions, which can substitute in an isomorphic way Al+++ ions in the beryl lattice. The optical spectrum analysis has confirmed the presence of iron. The results

of this research show that a qualitative analysis of

Card 1/2

Sharmes A. A. Ja Ja

USSR/Magnetism - Magnetic Radiospectroscopy, F-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34977

Author: Zaripov, M. M., Shamonin, Yu. Ya.

Institution: Kazan' University, USSR

Title: Paramagnetic Resonance in Synthetic Rubies

Original

Periodical: Zh. eksperim. i teor. fiziki, 1956, 30, No 2, 291-295

Abstract: Experiments were made at room temperature and at a frequency of 9,580 Mc. Investigation was made of monocrystals of artificial

rubies, the general equation of which can be written in the form (1-n) Al<sub>2</sub>O<sub>3</sub>·nCr<sub>2</sub>O<sub>3</sub>, with n = 0.1 - 0.01%. The paramagnetic resonance is given by the  $Cr^{3+}$  ions. The observed spectra are well explained if one assumes that the electric field of the crystal has fundamental. ly a trigonal symmetry; this does not contradict the crystallographic data on rubine. The initial splitting of the ground level of  $Cr^{3+}$  is found to be 0.38 cm<sup>-1</sup> and the g-factors entering into the usual spin

Hamiltonian is found to be  $g_{\parallel} \approx g_{\perp} = 0.98$ .

SHAMONIN, Yu.Ya.; YAN, S.A.

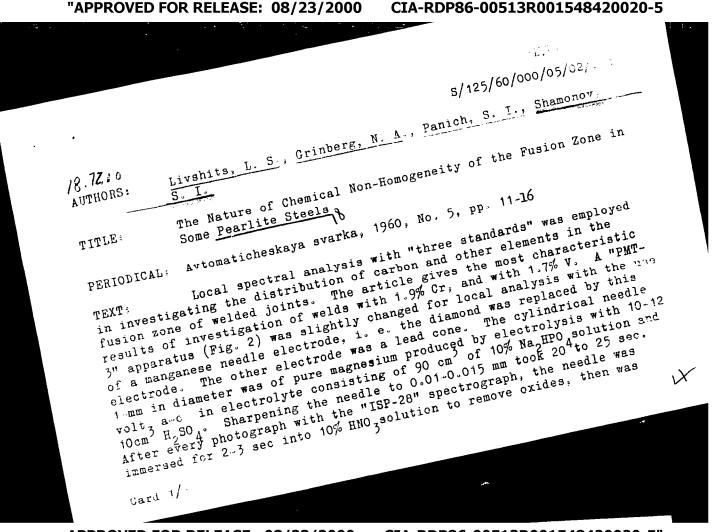
Solvation of Cu , Mn and Cr ions in alcohol-water solutions studied by the method of nuclear magnetic resonance. Dokl. AN Arm. SSR 38 no.5:289-293 '64. (MIRA 17:6)

l. F'ziko-tekhnicheskiy institut Kazanskogo filiala AN SSSR i TSentral'naya nauchno-issledovatel'skaya fiziko-tekhnicheskaya laboratoriya AN Armyanskoy SSR. Predstavelno chlenom-korrespondentom AN Armyanskoy SSR N.M.Kocharyanom.

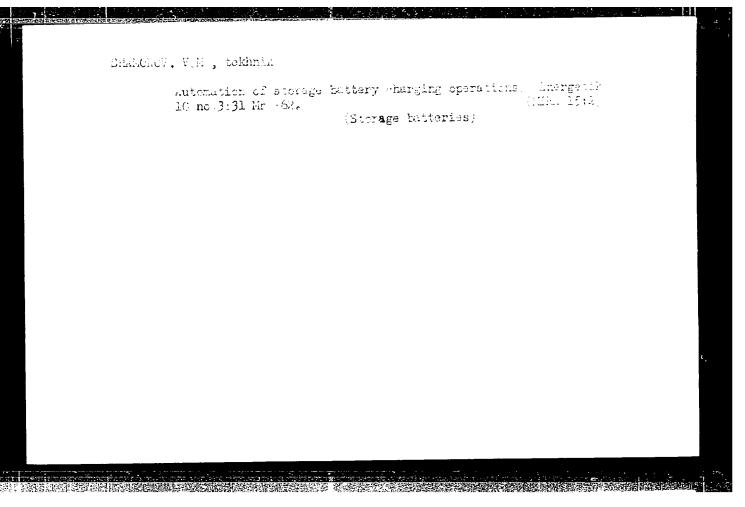
```
SHAMONOV, P.; MATYAGIN, D., inzhener; HELOV, K., rabochiy

Let's renew contacts between workers of the United States and the U.S.S.R. Sov. profsoluzy 7 no.17:48-50 S '59. (MIRA 12:11)

1. Predsedatel' zavkoma zavoda "Krasnyy proletariy" (for Shamonov).
2. Zavod "Krasnyy proletariy" (for Matyuagin, Belov).
(Russia--Relations (General) with United States)
(United States--Relations (General) with Russia)
(Trade unions)
```



no.10:30 0 '62. (MIRA 16:2)
a vodosnabzheniya i kanalizatsii (Pumping machinery)



AMITON, I. N.; SHAMONOVA, N. I. (Kolomna)

Spectral study of the composition of industrial dust. Gig. truda i prof. zab. no.4:51 '62.

1. Gorodskaya sanitarno-epidemiologicheskaya stantsiya.

(DUST) (SPECTRUM ANALYSIS)

Aeronautics in Arctic oceanographic research. Probl. Arkt. no.2:
19-31 '57.
(Arctic regions--Aeronautics in geography)
(Oceanographic research)

LAKTIOHOV, A.F.; SHAMONT'YEV, V.A.

Use of airplanes in oceanographic research in the Arctic.

Biul.Okean.kom. no.2:65-74 '58. (MIRA 12:5)

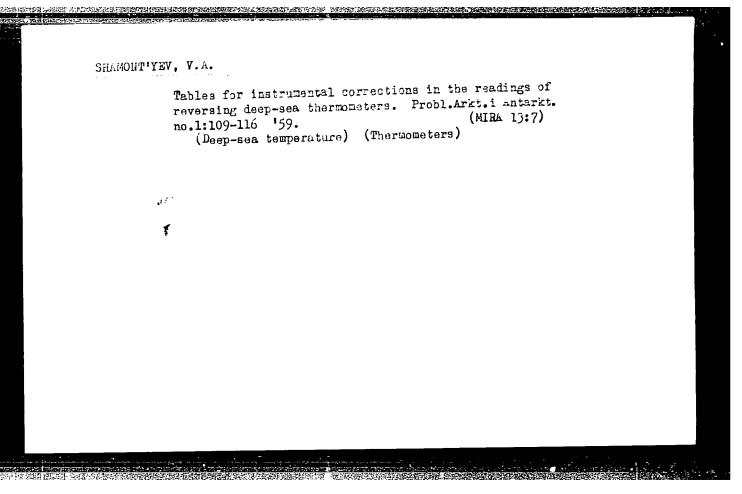
(Arctic regions--Oceanographic research) (Aeronautics in geography)

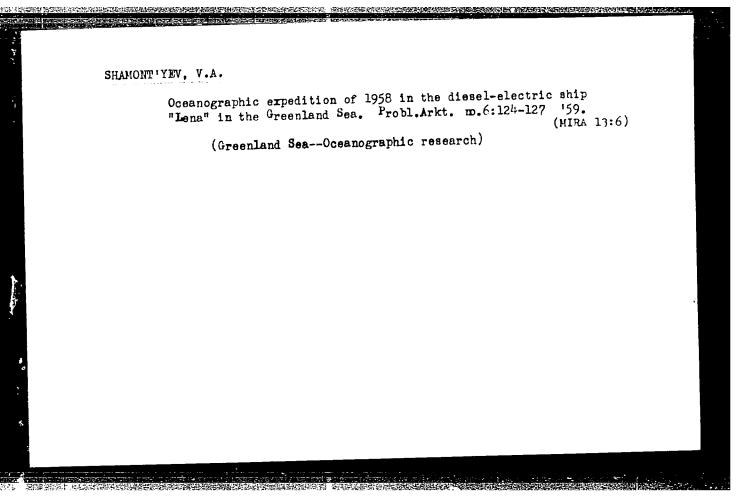
SHAMONT YEY, V.A.

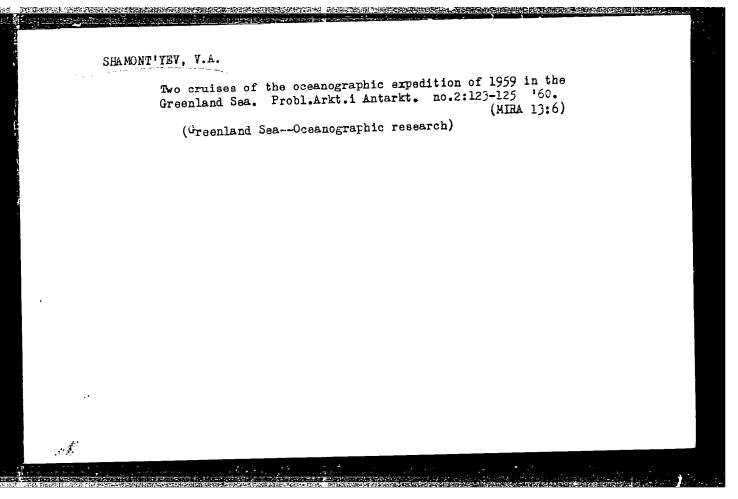
Making hydrological holes in the ice by blasting. Probl.Arkt. no.3:

(MIRA 12:1)

(Arctic Ocean-Blasting) (Oceanographic research)







SHAM NT: YEV, V.A.; YANES, A.V.

Some features of the winter hydrological regime in the northern part of the Greenland Sea. Probl.Arkt.i Antarkt. no.5:71-77 '60.

(Greenland Sea-Hydrology)

(Greenland Sea-Hydrology)

SHAMONT'YEV, V.A.

Drifting station "Korth Pole-9." Probl. Arkt. i Antarkt. no.10:
95-96 162.

(Drifting ice stations)

SHAMONT YEV, V.A., mladshiy nauchnyy sotrudnik

Brief characterization of the ice conditions of Alasheyev Bight. Inform. biul. Sov. antark. eksp. no.37:20-24 '62; (MIRA 16'4)

1. Arkticheskiy i anatarkticheskiy nauchno-issledovatel¹skiy institut.
(Alasheyev Bight-Sea ice)

KONONOV, A.S., mladshiy nauchnyy sotrudnik; SHAMONT'YEV, V.A., mladshiy nauchnyy sotrudnik

Brief characterization of the meteorological conditions in the area of Molodezhnaya Station, based on 1962 data. Inform. biul. Sov. antark. eksp. no.38;24-28 \*63. (MIRA 16:7)

l. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut. (Molodezhnaya Station region, Antarctica--Meteorology--Observations)

#### CIA-RDP86-00513R001548420020-5 "APPROVED FOR RELEASE: 08/23/2000

SHAMONT'YEV, V.A., mladshiy nauchnyy sotrudnik Local movements and breaking shore ice in Alasheyev Bight. Inform.

(MIRA 17:1) biul.Sov.antark.eksp. no.42:23-25 '63.

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

CIA-RDP86-00513R001548420020-5" APPROVED FOR RELEASE: 08/23/2000

SHAMONT'YEV, V.A., mladshiy nauchnyy sotrudnik

Tides in the Alasheyev Bight. Inform.biul. Sov.antark.eksp. no.43:31-32 '63. (MIRA 17:1)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

L 45288-66 EWT(1) GW SOURCE CODE: UR/2732/66/044/000/0115/0123
AUTHOR: Shamont'yev, V. A.
G.:G: none
TITLE: Results of observations of tidal phenomena in the region of the Molodezhnaya Station
SOURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955— . Sed'moy reys d/e "Ob'", 1961-1962 gg.; nauchnyye rezul'taty i materialy nablyudeniye (Seventh voyage of the diesel-powered "Ob", 1961-1966; scientific results and observation data); trudy ekspeditsii, v. 44. Leningrad, Gidrometeoizdat, 1965, 115-123
TOPIC TAGS: oceanographic research, ocean tide, oceanographic expedition, Antarctic climate
ABSTRACT: During the seventh Soviet Antarctic expedition in January-February 1962 observations were made on the variations of the sea level near the southern shore of Alasheyev Bay (67040'.5 S, 45047'.3 E), near the seasonal Molodezhnaya Station. Since observations in the sea level in this region had not been carried out previously, the obtained data are the first information on the character of tides in the region of Alasheyev Bay. The observations revealed that the average height of high (low) tide of the tropical tide relative to the average sea
Card 1/2

L 45288-66

ACC NR: AT6023230

level was 39 cm (68 cm); the average value of the tropical tide was 107 cm. The maximal (minimal) possible level of the tropical tide relative to the average sea level was 57 cm (-95 cm), and the maximal value of the tropical tide was 152 cm. The character of the tides in Alasheyev Bay showed that the fluctuations of the level in this region are similar in character and magnitude to the tides observed at the Soviet Antarctic stations Mirnyy and Lazarev. A study of the tides in the region of the new Antarctic station Molodezhnaya is of practical importance in connection with the complexity of the submarine relief and shallowness of the coastal part of this region of the Antarctic. A detailed investigation of the tidal fluctuations in the Alasheyev Bay will permit a more thorough study of the tides and the seasonal and annual variations of their regime in this interesting and important region. Orig. art. has: 1 table and 4 figures.

SUB CODE: 08/ SUBM DATE: 13Dec65/

Card 2/2 12/

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A	CC NR: AT6023232 (N) SOURCE CODE: UR/2732/66/044/000/0189/0215	
A	UTHOR: Shamont'yev, V. A.	
q	RG: none	
T	ITLE: Results of mctcorological observations	
10	OURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955 Sed'moy reys d/e "Ob'", 1961- 062 gg.; nauchnyyo rozul'taty i materialy nablyudeniy (Seventh voyage of the diesei-powered Ob'", 1961-1966; scientific results and observation data); trudy ekspeditsil, v. 44. Leningrad,	
G	idrometeoizdat, 1965, 189-215	
T	OPIC TAGS: Antarctic climate, meteorologic observation, meteorologic research facility	
tic tic Cl ol	BSTRACT: These observations were carried out to study the meteorological conditions in the ailing region of the ship Ob' and to elucidate the basic characteristics of the climatic conditions of the little-studied region of the Antarctic where the location for setting up the new station Molodezhnaya was selected. The observations on board the Ob' began south of the English channel to Alasheyev Bay. After the Ob' arrived at Alasheyev Bay the expedition began meteor-logical observations at the temporary camp of the seasonal detachments on the southern shore the bay in the region of the Molodezhnaya station, from January 9 to February 22, 1962.	-
C	ard 1/2	

Beginning with March 1, 1962 the weather observations were transferred directly to the Molodezhnaya station and were carried out there until March 31, 1962. Wind direction and velocity, air temperature, atmospheric pressure, cloud cover, horizontal visibility, and atmospheric phenomena were determined. The results of these ship-board and camp-site observations are given in extensive tables in appendices.					
SUB CODE: 04/ SUBM D	ATE: 13Dec65				
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### CIA-RDP86-00513R001548420020-5

L 56573-65. EEO-2/ENT(d)/FED/FSS-2/EEC(k)-2/ENA(d)/R-2/EEG(c)-2/EED-2 Pn-h/
ACCESSION NR: AE5016488 UR/O124/65/000/006/A006/A007
SOURCE: Ref. 2h. Mekhenika, Abs. 6444

AUTHOR: Shamordin. E. A.

TITLE: Kinematics of the parallel approaching of two points in the case of one of them moving along a parabola

CITED SOURCE: Uch. zap. Fermsk. un-t, no. 115, 1964, 75-80

TOPIC TAGS: target tracking, kinematics, trajectory determination

TRANSLATION: The following kinematic problem of pursuit is solved: a) the target is moving along a parabola; b) the pursuit is conducted by means of a parallel approach at a constant velocity; c) the pursuir is moving in the plane of motion of the target. The equations for pursuing the target are derived and solved, the motion of a pursuer is determined, and on example is analyzed. V. I. Kirgetov

SUB CODE: DC: ENCL: OO

KAPUSTA, I.Ya., inzh.; SHAMORDIN, V.I., inzh.; MIKLASHEVSKIY, N.I., inzh.;
LEMESHKO, V.V., inzh.

Roadability of the SSh-45 self-propelled chassis. Trakt. 1 sel'-khoznash. 33 no.6:32-35 Je '63. (MIRA 16:7)

1. Tul'skiy kombaynovyy zavod. (Tractors--Dynamics)

到的形式的,我们也是我们的现在,我们就是我们就是这种的人的,这样就是这种,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,不是这种人,不

SHAMOV, A.A., inzh.; ZAKARZHEVSKIY, V.P., inzh.

Mechanization of the preparation of metal supports. Gor. shur. no.5:
73-74 My '60.

1. Trest Fikopol'-Marganets.
(Mine timbering)

```
Poverkhuestnaia zakalka podkranovych katkov i besunov tokami vysokoi chastot. (Jesth. Mash., 1949, no. 5, n. 61-62)

(Surface Sardening of orane rollers and runners by high-frequency currents.)

PLO: Thi.Wh

30: Launifacturing and Mechanical Engineering in the Soviet Union,

Library of Congress, 1963.
```

2100 C. L. L. I. SHANOV, A. L. Ustreystva dlya elektronagrava gri tyrmicheskog chrabutko svtederaley. Tyrmaci. grom-sti. 1949, No. 7, s. 17-21.

So: Late is' Churnal'nykh Statey, No. 29, Moskva, 1949.

Programment of the standard distribute connects to treat shifts.

(% stn. Mash., 1980, no. 1, p. 62)

(Industrial utilization of installations for induction heating of rods.)

PLO: TMk.Wh

So: Hamufacturing and like anical Engineering in the Soviet Union,

Library of Concress, 1983.

的复数数据的证据,我们就是这种的数据的,我们就是这种的数据的,我们就是这种的数据的,我们就是这种的数据的,我们就是这种的数据的,这种是这种的数据的。这种是这种的

VOLOGDIN, V. J. BECOEVNOV, V. M.

Induction Heating

Induction heating of forgings in the blacksmith shop of the Moscow Lightweight Automobile Flant. Avt. Trakt. prom. No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 19582 Uncl.

SHAMOV, A. N.

USSR/Engineering - Caterpillar Track

Cord 1/1

Authors

: Shamov, A. II., and Ryskin, S. E.

Title

: High-frequency induction surface-hardening of caterpillar track link cleats

: Avt. Trakt. Prom. Ed. 1, 22-24, January 1954

Abstract

Periodical

Described are two automatic machines, designed by the Scientific Investigational Institute, for high-frequency induction surface-hardening of caterpillar track link cleats. Both machines are similar in construction, except that one is used for caterpillar cleats having a diameter of 30 mm or more, and the other for cleats having a diameter of 30 mm or less. Also mentioned is the technology for the high-frequency induction surface-hardening, and a comparison is made with an electrolytic hardening process. Drawings.

Institution : ....

Submitted : ....

BOGDANOV, V.N.; RYSKIN, S.Ye.; SHAMOV, A.N.; VOLOGDIN, V.V., inzhener, retsenzent; DONSKOY, A.V., professor, redaktor; VASIL'YEVA, V.P., redaktor izdatel'stwa; SOKOLOVA,L.V., tekhnicheskiy redaktor

[Induction heating in forging] Induktsionnyi nagrev v kuznechnom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 198 p.

(Induction heating) (Forging)

PHASE I BOOK EXPLOITATION

1002

## Charle , Aleksandr Nikolayevich

Pisaning Type koodbastotnykh nagrevatel'nykh ustroystv ot mashinnykh generatorov Capplying Current to High-frequency Induction Heating Installations by the rators) 2d ed., rev. and enl. Moscow, Mashgiz, 1957. 55 p. (Biblioteke vysokochastotnika-termista, vyp. 10) 10,000 copies printed.

Ed. (Sale page): Fogel', A. A., Candidate of Technical Science; Ed. (inside book): Estimer. A. V., Engineer; Reviewer: Donskoy, A. V., Doctor of Technical Sciences, Professor: Ed. of Publishing House: Simonovskiy, N. Z.; Tech. Ed., Sycheva, O. V.: Editorial Board of Series: Fogel', A. A., Candidate of Technical Sciences (Chairman), Spitsyn, M. A., Candidate of Technical Sciences, Slukhanov, N. P., Candidate of Sciences, Glukhanov, Candidate of Sciences, Candidate of Sciences, Glukhanov, Candidate of Sciences, Technical Sciences, and Bemuner, A. V., Engineer; Chief Ed. (Leningrad Sivision, Mashgiz): Bolshakov, S. A., Engineer.

PURE WELL Stills booklet is addressed to industrial workers interested in highdeequency heating techniques.

card 1/3

#### "APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001548420020-5 ,然后,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就是我们的一个人,我们就会是我们的一个人,我们就会是我们的一个人,我们就会是我们的

Supplying Current to High-Frequency (Cont.)

1002

COVERAGE. The besidet is part of a series entitled "Bibliotechka vysokochastotnika-(High-Prequency Heating Technicians Library) which publishes the the nevel amends in the field of high-frequency heating and the research and experience of the Institut tokov vysokov chastoty imeni professora V.N.Vologdina The allower of High-frequency Currents imeni Professor V.N. Vologdin). The section wise reports on Soviet and foreign achievements in the field. The purand adoption of highframency induction heating techniques, and to encourage the exchange of the latest experience in the field. The titles of all the booklets constituting the series are given at the end of each issue. The present work discusses in popular form problems in the power supply of high-frequency units by machine generators. Basic components of the power plant are discussed, as well as the and liary components required for controlling the thermal progesses. Problems of a centralized power supply for high-frequency units, the adjustment of such units and the transmission of high-frequency energy are discussed. The booklet also discusses the applications of high-frequency heating in Soviet industry. No personalities are mentioned. There are no 'references.

s pplying	Current to High-frequency (Cont.) 1002	
TABLE OF C	ONTENTS:	
3. Aut 4. Cen 5. Trai 6. Adji 7. Exar appe	ic components of high-frequency units and their function iliary components for automatic control matic control of the tempering process tral power supply for high-frequency units assission of high-frequency energy sting heating units apple of specifications of basic electrical equipment and tratus of high-frequency units fed from a 100-kw, 8000 coversal tempering machine generator	19 30 34 41 48
Card 3/3	JP/gmp 1-7-59	

SOV/137-58-10 20452

Translation from: Referativnyy zhurnal, Metallurgiya 1958 Nr 10 p 15 (USSR)

Shamov, A.N. AUTIOR:

THE REPORT OF THE PROPERTY CONTRACTOR OF THE PROPERTY OF THE P

Industrial Uses of High-frequency Currents in Sweden (Promy TITLE: shlennoye primeneniye tokov vysokov chastoty v Shvetsii)

PERIODICAL: V sb.: Prom. primeneniye tokov vysokov chastoty. Riga 1957, pp 383-389

A review of equipment manufactured in Sweden for high-ABSTRACT: frequency heating. Coreless induction furnaces (CIF) of four types - cylindrical, conical, two-frequency, and vacuum - are manufactured for operation on commercial frequency. In all these types of furnaces, insulation of the inductor coil is by a special ceramic coating. The magnetic conduit, in the form of a laminated-iron pack, is placed outside the inductor, circumferentially, and serves as a screen for the steel shell. Losses in the magnetic conduit do not exceed 1% of the furnace power. Losses in the capacitors do not exceed 0.3% of the rated reactive power. An auxiliary generator with 25-30% of the power of the main one is connected to the furnace to maintain the temperature during analyses, addition of alloying elements, etc., when the

Card 1/2

SOV/137-58-10-20452

Industrial Uses of High-frequency Currents in Sweden

。 在1000年,1000年的1000年的**的过程的1000年,在1000年**的日本中的1000年的1000年,1000年的1000年,1000年的1000年,1000年

main generator is connected to a new furnace. The ASEA firm manufactures CIF of 1/0-18 0 t capacity with generators of 550-4400 kwh a frequency of 1000 to 600 cps and output rate 0.74-6, 2 t/hr of steel and 0.86 7.3 t/hr of pig iron. This same firm manufactures two-trequency furnaces in which a highfrequency current is transmitted through the inductor for heating, and a 2-, 4-, or 6 phase current of  $16^{2/3}$  or 50 cps is transmitted to stir the metal. These turnaces produce products with S and P contents as low as 0.01%, while a second replacement of the slag reduces S to 0 004% and P to 0 003% The ASEA company's device for mixing metal in arc furnaces requires that the bottom of the furnace be made in part of nonmagnetic material A stirrer tor a 150-t turnace is of 765-kva power and 0.38 cps. The Tekniks L vungskile company [ probably the HF-Teknik company in Ljungskile, Sweden; Transl Ed Note] manufactures generators for the welding of mas ticated rubber, 250-5000 watts in power with single or 3 phase feed at 40 27 mc. A large number of motor-generator sets at frequencies of up to 20 kc and of 15-30 kw power, for the brazing of cutters, heating of billets, and annealing of tubes after welding, etc. is also manufactured.

1. Induction furnaces—Design 2. High frequency currents—Applications A S

3. Generatore--Performance

Card 2/2

SHAMOV, A.N.; BODAZHKOV, V.A.; ZHIZHMOR, Ya.I., inzh., retsenzent;
MORGUN, V.V., inzh., red.; MIKHEYEVA, R.N., red.izd-va;
PETERSON, M.M., tekhn. red.

[Design and operation of high-frequency plants] Proektirovanie i ekspluatatsiia vysokochastotnykh ustanovok. Moskva, Mashgiz, 1963. 218 p. (MIRA 17:1)

出来,我们就是我们的的,我们可能是我们的,我们就是我们的,我们就是我们的,我们就是我们的,我们就是我们的,这个人,不是一个人。

MYCREW, 2.We., inme.; SHEMOV, A. H.

Induction meaning in forges and rolling mills. Truly HIITWON
(MIRA 17:7)
no.Asympt. 163.

SHAMOV, A.N.; BONSKOY, A.V., prof., doktor tekhm. nauk retsenzent;
FOZEL', A.A., kard. tekhm. nauk, red.

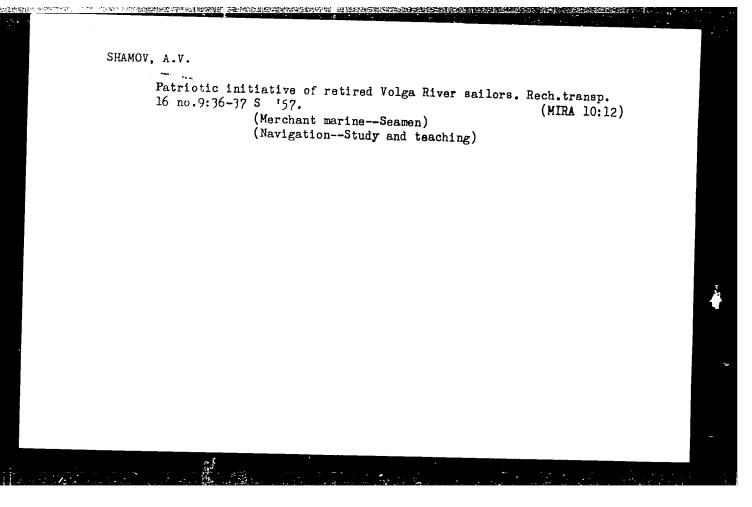
[Fouer supply of high-frequency heating systems from large electric generators] Pitanie vysokochastotnykh nagrevatel'nykh ustroistv ot mashimykh generatorov. Izd.3.,
Fod red. A.A.Fogelia. Moskva, Mashimostroenie, 1965. 57 p.

(Bibliotechka vysokochastotnika-termista, no.10)

(MIRA 19:1)

KALINIK, Vyacheslav Pavlovich; SHAMOV, Aleksandr Vasil'yevich; PETROV, Y.D., redaktor; VYSOTA, I.I., retsenzent; FRIOROV, V.B., retsenzent; KAN, P.M., redaktor; KRASNAYA, A.K., tekhnicheskiy redaktor.

[Training manual for marine boiler tenders] Posobie dlia podgotovki sudovykh kochegarov. Moskva, Izd-vo "Rechnoi transport," 1955. 163 p. (Boilers, Marine) (MLRA 8:10)

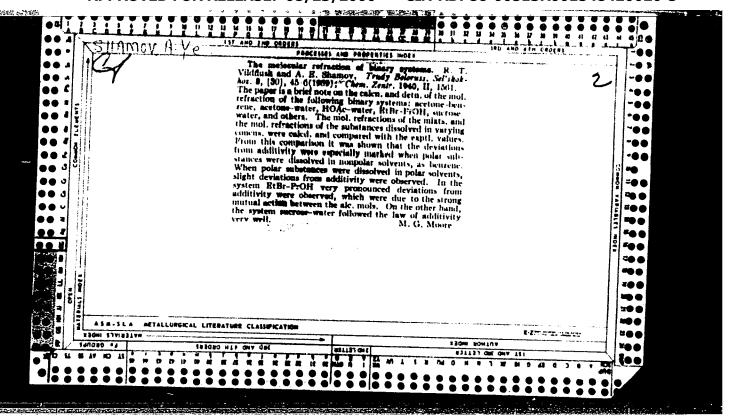


KALININ, Vyacheslav Pavlovich; SHAMOV, Aleksandr Vasil'yevich; Prinimal uchastiye SIZYKH, V.A., inzh.; KOLICHENKO, K.N., inzh., retsenzent; YTSOTA, I.I., retsenzent; KAN, P.M., red. izd-va; FOKHLEZKINA, M.I., tekhn. red.

[Ship stokers' handbook] Posobie sudovomu kochegaru. 2. dop. i ispr. izd. Moskva, Izd-vo "Rechnoi transport," 1961. 171 p.

(Boilers, Marine)

(Boilers, Marine)



SHATA-1, A. YJ.

Dissertation: "A Study of the Condition of an Alpha Solid Solution of Steels After Tempering and Annealing." Cand Phys-Math Sci, Central Sci Res Inst of Ferrous Metallurgy, Moscow, 1953. (Referativnyy Zhurnal, Khimiya, Moscow, No 16, Aug 54)

Su: SIM 3.73, 28 Feb 1955

SHAM V, A.E.

Journal of the Iron and Steel Institute Vol. 176 Apr. 1954 Metallography

Evaluation B-78539, 8 Sys 54

On the State of Martengite Crystals of Hardened Loy Carson Steels. G. V. Kurdyumov, M. D. Perkas, and A. E. Shamov. (Doklady Akademit Nauk S.S.R., 1933, 92, (5), 955-957). [In Russian]. The state of martensite in a series of low-carbon steels (quenched from 1000-1050° C. in a solution of sodium hydroxide at 0° C.) was investigated by determining the width of the (211) line in chromium radiation, the hardness, and the coercive force. An increase in carbon content leads to a continuous increase of all three quantities, indicating an increasing amount of carbon in solid solution. Concerning the influence of manganese content on the width of the line (211) it was found that, in all alloys, the carbon centent of martensite was the same and that the carbon was retained in solid solution. It is concluded from the data obtained that, during the rapid quenching of carbon steel containing 0·1% of carbon, martensite is not able to decompose during cooling and the carbon remains in solution. This conclusion is valid for steels with carbon < 0·1%. The main condition for the retention of al' the carbon in a solid solution is a high quenching speed.—v. c.

KURDYUMOV, G.V., akademik; PERKAS, M.D., kand.tekhn.nauk; SHAMOV, A.Ye., kand. fiz.-mat.nauk

了。 1970年1970年 直接的现在分词 医动物性神经炎 经国际公司的

State of martensite crystals in hardened commercial iron and low-carbon steel. Probl. metalloved. i fiz. met. no.4:228-238 '55.

(Metal crystals) (Martensite) (MIRA 11:4)

SOV/137-57-10-20075

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 233 (USSR)

AUTHORS Perkas, M.D., Shamov, A.Ye.

TITLE. A Study of the Solubility of Carbides in Gamma Iron by Measurement of the Width of an Interference Line (Izucheniye rast-

vorimosti karbidov v y -zheleze metodom izmereniya shiriny

interferentsionnoy linii)

PERIODICAL: Tr. Kuybyshevsk. inzh.-stroit. in-t, 1957, Nr 4, pp 177-

183

ABSTRACT: An investigation is made of mild steel with 0.1% C and alloy

steels with 6 and 11% Cr, 0.5 Ti, or 1.16% Nb, and also of multiple-alloy steel with 0.67% Ti and 5.7% Ni, 1.45% Cr and 0.83% V, 1.48% Mn and 1.4% V. To dissolve the carbides (Cb) in the  $\gamma$  phase, the specimens are heated to 850-1300° and hardened in a 10% aqueous solution of NaOH. The X-rays are taken by the back reflection method, Cr radiation being employed. An expression is found for the relationship between the

Card 1/2 width of the (211) line to the temperature at which the steel is

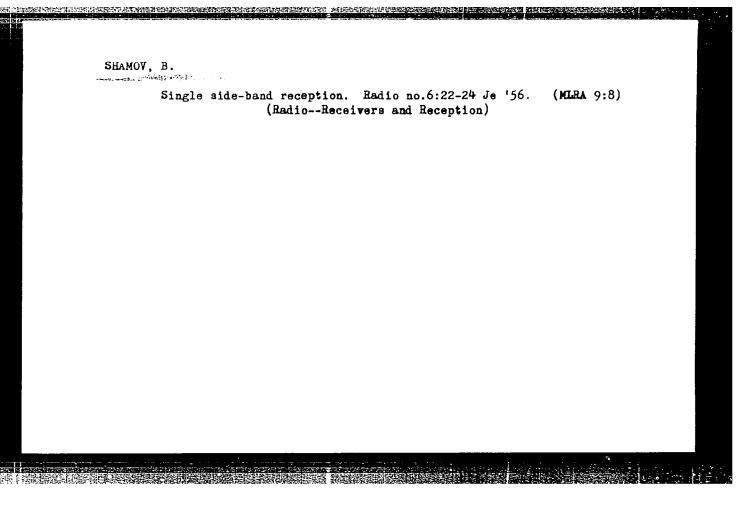
SOV/137-57-10-20075

A Study of the Solubility of Carbides in Gamma Iron (cont.)

hardened. It is shown that as the Cr contents of the steel increase the temperature of onset of dissolution of the Cr Cb in the  $\gamma$  phase rises. The subsequent process of dissolution of Cb of high-chromium steels proceeds more intensively than in steels containing little Cr. Data are obtained descriptive of the differing effects of alloying elements upon the solubility of Cb in austenite. It is shown that the taking of an X-ray of a specimen in which all the C is in the ferrite and X-rays of the specimens under investigation permits determination of the solubility of Cb in the  $\gamma$  phase by line width.

L.M.

Card 2/2



BAUSHEV, Mikolay Mikhaylovich; SHAHOV, Boris Pavlovich; MOSOLOV K.V., nauchm, red.; TIKHONOVA, M.V., red.; BAHANOVA, N.M., tekhn. red.

[Modernization of training-shop equipment] Modernizatsiia oborudovaniia uchebnykh masterskikh. Noskva, Proftekhizdat, 1963. 52 p. (MIRA 17:1)

THE PROPERTY OF THE PROPERTY AND PROPERTY OF THE PROPERTY OF T SHALTY, D. F. organism of the constant of the learners of Managers to any in the fields of DE L'ANDRE BLACCE DE LA COMPTE LA CONTRE STANCE STANCE STANCE DE LA CONTRE SOSONI-TRACES, BL. CONTREMENT DE CE PRESE MANDES SER PER CONTRE STANCE PRESENTANT DE CONTRE SOSONI-THE REPORT OF THE PROPERTY OF THE PARTY OF THE PROPERTY OF THE Pittie of Work Institute of Geological Rauzer-Chernousova, "Middle Carboniferous D. M. Fusilinides of the Sciences Academy of Science Grozdilova, L. P. Russian Platform and USSR. Reytlinger, Ye. A. Adjacent Areas" Vissarionova, A. Ya. Shamov, D. F. Lipina, C. A.

#### CIA-RDP86-00513R001548420020-5 "APPROVED FOR RELEASE: 08/23/2000

15-1957-3-2611

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,

pp 7-8 (USSR)

AUTHOR:

Shamov, D. F.

TITLE:

Capada Cara San San Cara Deposits of Ishimbayskeya Priural!-

ye (Ishimbay Region of the Urals) (Sakmaro-artinskiye

otlozheniya Ishimbayskogo Priural'ya)

PERIODICAL:

Uch. zap. Kazansk. un-ta, 1955, Vol 115, Nr 10, pp 111-

113

ABSTRACT:

The paper discusses, with examples, the Lower Permian sections of the Ishimbay buried masses and the isolated mountains of Sterlitamak, in southern Bashkiri\* different ages of the Lower Permian limestones occurring in these masses and isolated mountains are noted. The rocks are considered to be a reef complex. Two types of such formations are distinguished by differences in morphology. Normal marine or platform sediments are developed to the west of the occurrences mentioned (no more than 900 m thick), and to the east there occurs a thin-

Card 1/2

SHAMOV, D.F.

Facies of Samara-Artinskian sediments in the Ural Mountain region near Ishimbay. Trudy UFNII no.2:3-77 '57.

(MIRA 12:1)

(Ishimbay region--Rocks, Sedimentary)

Conditions governing the formation of oil fields in the cis-Ural depression. Geol.nefti i gazs 3 no.8:30-35 Ag '59.
(MIRA 12:11)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut (UTHII).

(UTAL Mountain region--Petroleum geology)

SHAMOV, I.A.

Intravital detection of rupture of the papillary muscle of the heart following myocardial infarct. Vrach. delo no.4:126-127 Ap '61.

(MIRA 14:6)

1. Kafedra gospital'noy terapii (zav. - dotsent Kh.E.Gadzhiyev)

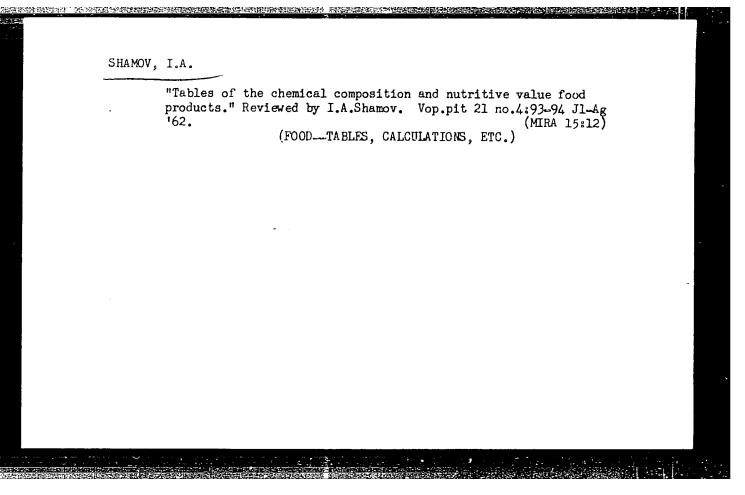
Dagestanskogo meditsinskogo instituta.
(HEART--INFARCTION)

SHAMOV, I. A. (Makhachkala)

Etiology of diabetes insipidus. Probl. endok. i gorm. no.6:100-101 (MIRA 14:12)

1. Iz gospital noy terapevticheskoy kliniki (zav. - dotsent Kh. E. Gadzhiyev) Dagestanskogo meditsinskogo instituta (dir. - dotsent M. M. Maksudov)

(DIABETES)



SHAMOV, I.A.

Notes on the vitamin content in the diet of experimental animals. Lab. delo no. 12:748-750 164. (MIRA 13:1)

l. Kafedra gospital'noy terapii (zaveduyushchiy - dotsent Kh. E. Gadzhiyev) Dagestanskogo meditsinskogo instituta, Makhachkala.

SHAMOV, 1.A.

Composition of the normal intestinal microflora of rats and its dynamics under the influence of necrogenic and cirrhogenic diets; eticlogy and pathogenesis of enterogenic hepatitis and liver cirrhosis. Vop. pit. 22 no.4:30-39 Jl-Ag 163.

(MIRA 17:10)

l. Iz kafedry gospital'noy terapii (zav. - dotsent Kh.E. Gadzhiyev) Dagestanskogo meditsinskogo instituta, Makhachkala.

L 12579-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pr-4/

Pc-4 RM/WW ACCESSION NR: AP3003316

s/0191/63/000/007/0064/0065 7/

AUTHORS: Pokrovskiy, L. I.; Polyakov, Yu. N.; Shamov, I. V

TITLE: Low-pressure polyethylene filters

TENNESS OF THE PROPERTY OF THE

SOURCE: Plasticheskiye massy, no. 7, 1963, 64-65

TOPIC TAGS: filter, polyethylene, polymer, polyvinylchloride, Vinyon, compression strength

ABSTRACT: Authors present a generalized survey of polymers which can be used for filters. The most extensively developed are filters made out of polyvinylchloride and polyethylene. This is due to their high operating properties and low cost of raw materials. The use of polyvinylchloride filters is limited by the material's thermo-of polyvinylchloride filters can be used up to a temperature of +60 C. stability These filters can be used up to a temperature of +60 C. High-density polyethylene filters can operate at higher temperatures (up to 100C). Vinyon is described briefly [Abstractor's note: this name is misspelled in the original.] Production of polyethylene filters is decribed. Authors produced low-pressure polyethylene filters with NaCl as filler. Method described is simple and practifilters with NaCl as filler. Method described is simple and practi-

Card 1/2

L 12579-63
ACCESSION NR: AP3003316

cal for the production of fine-pore, low-pressure polyethylene filters. Indices such as weight by volume, pore size, compression the fact that polyethylene filters can be successfully used in place of the more common filter materials.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: MA NO REF SOV: 011 OTHER: 004

EWT(m)/EPF(c)/EWP(j)/T/EWA(c) Pc-4/Pr-4 RPL JW/RM ACCESSION NR: AP5004317 S/0191/65/000/002/0068/0069

AUTHOR: Valgin, V.D.; Vasil'yeva, E.A.; Shamov, I.V.; Sergeyeva, V.A.

TITLE: Study of the resistance of epoxy foams to petroleum products

SOURCE: Plasticheskiye massy, no. 2, 1965, 68-69

TOPIC TAGS: epoxy resin, epoxy foam, foam plastic, petroleum, gasoline, phenylene-

ABSTRACT: The resistance of epoxy foam PE-1 to various petroleum products was measured to determine its service properties. The foam has a closed cellular structure and is produced from m-phenylenediamine. Compression resistance, resistance to static bending, impact strength, weight loss, and adsorption were measured before and after 1-10 days immersion in aviation gasoline, leaded gasoline, residual fuel, petroleum, and fuel oil TC-1; the weight loss after 30 hrs. immersion in 80C petroleum or 10 hrs. immersion in petroleum at 90C, and the weight loss in sulfonate solutions used for the cleaning of tanks, were also measured. Mechanical properties were not affected under any of the conditions studied, detected losses of weight were negligible, the adsorption of petroleum products was small and restricted to the surface area, and the body of the foam 1/2

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ASSOCIATION: none			
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module setup for studying the deformation relaxation in trace. Zavelab. 31 no.4:293-294. 165.

1. Viadimirskiy nanchno-issledovatel skiy institut cintett-phenkikh smol.

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ZLOBIN, L.I.; PIGAREVSKIY, A.N.; SHAPIRO, E.L.; SHAMOV, V.A.

Methods of measuring radioactivity in human subjects. Med.
rad. 4 no.6:85-87 Je '59. (MIRA 12:8)

1. Iz Institute radiatsionnoy giglyeny Ministerstva zdravookhraneniya RSFSR.

(RADIOACTIVITY,
intravital measurement of human radioactivity,
review (Rus))

SHANOV, VLADIMIR NIKOLAEVICH 1962

1964

Medicine neurosurgery radiation

L 58942-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG
ACCESSION NR: AP5016346 UR/0149/65/000/002/0072/0078
669.871

AUTHOR: Shamov, V. N.; Zhurin, A. I.

TITLE: Electrolytic extraction of gallium from recycled aluminate liquors

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 2, 1965, 72-78

TOPIC TAGS: gallium, electrolysis, aluminates

ABSTRACT: Measures and conditions for the direct recovery of gallium by electrolysis of aluminate liquors and solutions at low current densities are described. Hydrogen evolution overvoltage was investigated in special cells, one for overvoltage on a steel electrode, the other for the case of a steel electrode coated with gallium. Hydrogen overvoltage on gallium was found to be significantly higher than that on steel. Experimental findings confirmed that the electrolytic recovery of gallium using steel cathodes plated with gallium is more efficient—with higher current efficiency and lower electric consumption—than when steel or nickel cathodes are employed. The process was studied with synthetic aluminate solutions and with solutions similar to those in the Bayer aluminum refining process. Solution

Card 1/2

L 58942-65 ACCESSION NR: AP5016346 gallium content was 0.15 to 0.16%/2. The yield of gallium as a function of current densities from 50 to 3,000  $a/m^2$  at a temperature of 67-72°C is shown. The effect of the rate of circulation of the solution on current efficiency and electrical consumption is significant. The simplicity of the process makes it a promising one for direct recovery of gallium from aluminate solutions. A possible drawback, found in the study of the effect of solution composition on current efficiency, is the presence of sodium vanadates which greatly reduce gallium current efficiency. Orig. art. has: 5 figures, 6 tables. ASSOCIATION: Kafedra elektropirometallurgii tavetnykh metallov Leningradskogo politekhnicheskogo instituta (Department of Nonferrous Electropyrometallurgy, Leningrad Polytechnic Institute) SUB CODE: ENCL: 00 SUBMITTED: 24Dec63 OTHER: 002 NO REF SOV: 005

SHAMOY	V.P.		600 E
	ATO AEC-tr-2435((Pt. 2) (p. 55-64))  NUCLEAR FISSION REACTIONS DUE TO NEGATIONS AND FAST PROTONS. N. A. Periffloy, N. S. Ivanova. Lożkie, V. I. Ostroumov, and V. P. Shamov. p. 55-6  CONFERENCE OF THE ACADEMO OF SHENCES OF USSR ON THE PEACEFUL USSS OF ATOMIC ENERG  JULY 1-5, 1955. SESSION OF THE DIVISION OF CH ICAL SCIENCE. (Translation). 10p.  This paper was originally abstracted from the Russ and appeared in Nuclear Science Abstracts as NSA 9-7	64 of THE Y.	
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Nuclear fission reactions with a   11   1005. N.A. Perfiley, N.S. Ivano   Ostromory and V. P. Shamov S.S.S.R. op Mirnoms, \$555500   Mirnoms, \$555500   Mirnoms, \$555500   Mirnoms, \$5500   Mirnoms, \$1500   Mirnoms and fast (480-680-m.e. and W. was studied by the thick-en me thad.   The results show that U. Hi, and W. causes their fission of U. Mi, and W. causes their fission of U. Mi, and W. with fast p det. the excitation energy and to fission products with respect to the The actual fission process at high egded by the evapu. of neutrons a	Sessive Akad. Nauk  M. (Immal Energy 1955.  - W. — The interaction of  v.) protons with U, Bi, ulsion photographic-plate is capture of slow pions by  on, the probability being  sep. The U-fission yields harp max. indicating that it fast particles. The reac- rotons made it possible to find the distribution of the  e initial excitation energies.	- AM	
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CONTROL TO THE PROPERTY OF THE

USSR, Nuclear Physics - Fission by negative pi-mesons

FD-2339

Card 1/2

Pub. 146 - 4/34

Author

: Perfilov, N. A.; Lozhkin, O. V.; and Shamov, V. P.

Title

: Yield of the processes of fission and star formation during capture of negative pi-mesons by uranium, bismuth, and wolfram nuclei

Periodical

: Zhur. eksp. i teor. fiz. 28, 655-663, Jun 1955

Abstract

: By the method of thick-layer photoplates with the substance introduced into the middle layer in the form of compounds insoluble during development and fixing, the authors investigated the interaction of slow negative pi-mesons with U, Bi and W nuclei. For the indicated elements they obtain the ratios of yield by fission and star formation as a result of capture by the nuclei of negative pi-mesons. The probability of fission of nuclei during capture of negative pi-mesons decreases sharply with decrease of Z of the nucleus: for U the fission probability is about 0.3; for Bi, 0.02; for W, less than 0.002 possibly. The remaining cases of interaction of negative pi-mesons with heavy nuclei lead to formation of mainly so-called rayless and single-ray stars. They consider the mechanism of nuclear fission to be possible in the case of capture of negative pi-mesons. Eleven references; e.g.

Card 2/2 FD-2339

N. A. Ferfilov, O. V. Lozhkin, V. P. Shamov, N. S. Ivanova, A. V.

Pyrkin, Otchet RIAN, 1950, 1952, 1953, 1955.

Institution : Radium Institute, Academy of Sciences USSR (RIAN)

Submitted : March 19, 1955

#### CIA-RDP86-00513R001548420020-5 "APPROVED FOR RELEASE: 08/23/2000

UMSE/Nuclear Physics - Fission of uranium by slow mesons

FD-2353

Card 1/1

Fub. 1-6 - 18/34

Author

: Lozhkin, O. V., and Shamov, V. P.

Title

: Probability of fission of uranium nuclei during their absorption

of slow negative pi-mesons

Periodical

: Zhur. eksp. 1 teor. fiz. 28, 739-740, Jun 1955

。 第112章 "大学,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人

Abstract

: A report communicated earlier in Otchet RIAN\*, Jan 1954. The authors state that the first determinations of the probability of fission of uranium nuclei during capture of negative pi-mesons, which were carried out in their laboratory in 1951 by Perfilov, Ivanova, and the authors (Otchet RIAN, 1951-1952), by means of the method of thick-layered photoemulsions, led to the conclusion that every or almost every capture of negative pi-meson by uranium nucleus leads to its fission, which conclusion was later made by 5. Al-Salam (Phys. Rev. 84, 1951). Using the same method the authors evaluated the probability of fission as 0.18±0.06, differing from the value in the literature (W. John and W. Fry, Phys. Rev. 91 1953). They thank Professor N. A. Perfilov. 6 ref.

Institution : Radium Institute, Academy of Sciences USSR [RIAN\*]

Submitted

: March 19, 1955

USSR/Nuclear Physics - Fission of heavy nuclei

FD-2903

Card 1/2

Pub. 146 - 4/28

Author

: Shamov, V. P.; Lozhkin, O. V.

Title

: Asymmetry of flight paths of fragments during fission of heavy

nuclei by superfast particles

Periodical

: Zhur. eksp. i teor. fiz., 29, September 1955, 286-291

Abstract

In accordance with data of an investigation into the fissions of U, Bi, and W nuclei under the action of protons with energies of 600 Mev in a fine-grain emulsion P-9, the authors construct the distribution of ratios of flight paths of fragments for various energies of disturbance of the fissioning nuclei. They find that with increase of the energy of excita ion of the nucleus the fraction of strongly asymmetrical fission increases; here, this increase is significantly larger for Bi than for U. For energy of excitation of the nucleus approximately equal to or greater than 400 Mev the character of the fission is identical for U, Bi, and W. The authors evaluate the region of excitation energies where the fission of the nuclei possesses the most symmetrical character; for uranium it is 60-100 Mev, and for bismuth it is about 100 Mev. They thank Professor N. A. Perfilov for his participation in the discussion of the results. Two references: V. P. Shamov, Otchet RIAN, 1954; R. Mathieu, P. Demers, Canad. J. Phys., 31,97, 1953.

Institution : Radium Institute, Academy of Sciences USSR

Submitted : May 12, 1955

USSR/Nuclear Physics - Fission fragments distribution

FD-2964

Card 1/1

Pub. 146 - 5/28

Author

: Lozhkin, O. V.; Perfilov, N. A.; Shamov, V. P.

Title

: Problem of the angular distribution of fragments in the fission

of uranium for large energies of excitation

Periodical

: Zhur. eksp. I teor. fiz., 29, September 1955, 292-295

Abstract

: The authors investigated the cases of the fission of uranium nuclei in the nuclear fine-grain emulsion P-9 saturated with an aqueous solution of a uranium salt and irradiated by protons with energies of 600 Mev. They study do the angular distribution of the fission products (fragments) relative to the direction of the proton beam for energies of excitation of the uranium nucleus equal to approximately 75 Mev, 150 Mev, and 300 Mev. The angular distribution of the fragments can be approximately described by the following function: a \* b sin \* for the anisotropy increeses somewhat with increase of the energy of excitation. Six \* for ences: e.g. V. P. Shamov, O V. Lozhkin, Otchet RIAN, 1955.

Institution

: Radium Institute, Academy of Sciences USSR

Submitted

: May 12, 1955

USSR/Physics

Card 1/1 Pub. 22 - 16/45

John B. V. P.

Authors ! Shamov, V. P. and Lozhkin, O. V.

Title : Asymmetry of the runs by fragments of the fission of heavy nuclei bombarded with super fast particles

Periodical : Dok. AN SSSR 103/2, page 233, Jul 11, 1955

Abstract : An experimental study of the asymmetry of the runs of nuclear fragments,

a product of the fission of heavy elements bombarded with super fast particles (protons of 660 Mex.), is described. Emulsions with U, Bi and

W were studied. One USSR reference (1954).

Institution: The Acad. of Sc., USSR, Radium Institute imeni V. G. Khlopin

Presented by: Academician A. F. Joffe, May 20, 1955